

**Notice of Allowability**

Application No.

10/849,765

Examiner

Zia R. Hashmi

Applicant(s)

ELLEFSON ET AL.

Art Unit

2881



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/9/2005.
2. ☒ The allowed claim(s) is/are 1-11 and 13-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## DETAILED ACTION

### *Allowable Subject Matter*

1. An "Amendment" was received on September 9, 2005, in response to Office Action of June 23, 2005. Independent claims 1, 15, 22, & 31, and dependent claims 5, 8-9, 11, 16, and 32 have been amended, and claim 12 canceled, as indicated.
2. Claims 1-11 and 13-36 are allowed.
3. The following is an examiner's statement of reasons for allowance:
4. With respect to independent claims 1 and 15, prior art fails to disclose an ion source for a mass analysis system, said ion source comprising: means for forming an electron stream, an anode having an interior region into which said formed electron stream is injected, the electron stream terminating within the anode region and in which ions are formed; and a releasable anode liner, the anode cover being releasably insertable into the interior anode region and configured to receive the electron stream therein, the anode liner being an open-ended sleeve member that is sized to fit within the interior anode region in an axial orientation relative to the formed electron beam of the ion source, the anode cover being insertable and removable from the anode interior region without requiring disassembly thereof.
5. With respect to the independent claim 22, prior art fails to disclose an ion source assembly for a gas analysis system, said assembly comprising: an ion source including at least one filament, an anode structure having an interior region into which a formed electron beam from said filament enters, a gas port that permits the entry of process

gases for analysis and a plurality of replaceable anode liners wherein an anode liner is selectively and releasably insertable into the interior of the anode structure, each of the liners being made from an electrically conductive material and having means for permitting at least a portion of the electron stream to enter the interior of the anode structure the liner being insertable and extractable from the interior of the anode structure without requiring its disassembly. And,

6. With respect to independent claim 31, prior art further fails to disclose a method for improving the sensitivity of a contaminated ion source, the ion source including an anode structure defining an interior region, the interior anode region receiving an electron stream wherein ions are formed in the region, the method comprising the steps of: inserting a replaceable anode liner into the interior of the anode structure such that the liner is disposed in the interior anode region and receives the electron stream, the liner being an open-ended sleeve member which is inserted without requiring disassembly of the anode structure, the liner being made from an electrically conductive material permitting insulating deposits from the electron stream to form on an interior surface thereof in lieu of the interior of the anode structure.

Claims 2-11, 13-14, 16-21, 23-30, and 32-36 are allowed by virtue of their dependencies on the independent claims 1, 15, 22, and 31.

### **Conclusion**

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

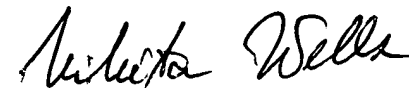
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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zia Hashmi whose telephone number is (571) 272-2473. The examiner can normally be reached between 8.30 AM- 5 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477.

Zia Hashmi

November 30, 2005



NIKITA WELLS  
PRIMARY EXAMINER

12/08/05